CLARK COUNTY
WASHINGTON

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October 1999

Permit Center 1408 Franklin, Vancouver, Washington
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Phone: (360)397-2375 FAX (360)397-6049
Permit Center Hours: 7:30 to 4:30 weekdays

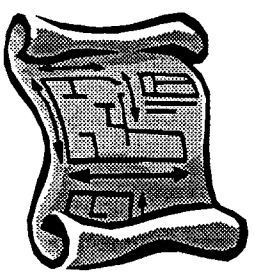
Battle Ground Office 701 E Main Street
Battle Ground , Washington 98604
Phone: (360)687-7126 FAX (360)
Office Hours: 8:00 to 4:30 weekdays

Residential Construction Guide

This guide can be used for residential addition projects and single-story buildings of less than 800 square feet

Directions

- ❑ Select construction details you'd like to use from pages 3 through 10 and fill in the blanks on page 2
- ❑ Pages 11, 12 and 13 are drawing samples only, and are not meant to be used in your plan submittal
- ❑ Use of this Residential Construction Guide will allow you to fill in the blanks on the following pages, and eliminate many pages of building plans. However, you will still need to provide us with 2 copies of floor plans and elevations for your proposed project.
- ❑ Floor plans (you must provide these) must be drawn to 1/4"=1'-0" scale
- ❑ Please make sure you clearly describe the proposed use of the building or addition on the plans themselves or in a separate written narrative.
- ❑ Depending upon your situation, additional information or requirements may apply. Please contact a Permit Specialist at the Permit Center to make sure you have all required information for your permit submittal.
- ❑ If you are proposing an addition to an existing building, you must how existing rooms adjoining the proposed new construction.



BUILDING DESCRIPTION

OWNER'S NAME_____ **PERMIT #**_____

ADDRESS_____

PHONE_____ **BUSINESS PHONE**_____

1) Please describe building use (s)_____

2) Check one: Detached_____ Attached_____ Total Sq. Ft. of project_____

3) Footing Type **(See sheet 3)** – Check one:

Monolithic_____ Slab_____ other_____ Max. height of foundation_____
(If other, please provide detail)

4) Floor Type **(see sheet 4 and 5)** – Check one:

Slab_____ Post and Beam_____ Floor Joist_____
(If other, please provide detail-see example on sheet 11)

5) Wall type **(see sheet 6)** – Check one:

Detail 1 – 2 x 6 insulated with exterior sheathing **(single wall)** _____

Detail 2 – 2 x 6 insulated with siding and sheathing **(double wall)** _____

Detail 3 – 2 x 4 or 2 x 6 unheated garage or shop _____

6) Roof Type **(see sheets 7, 8 and 10)** – Check one:

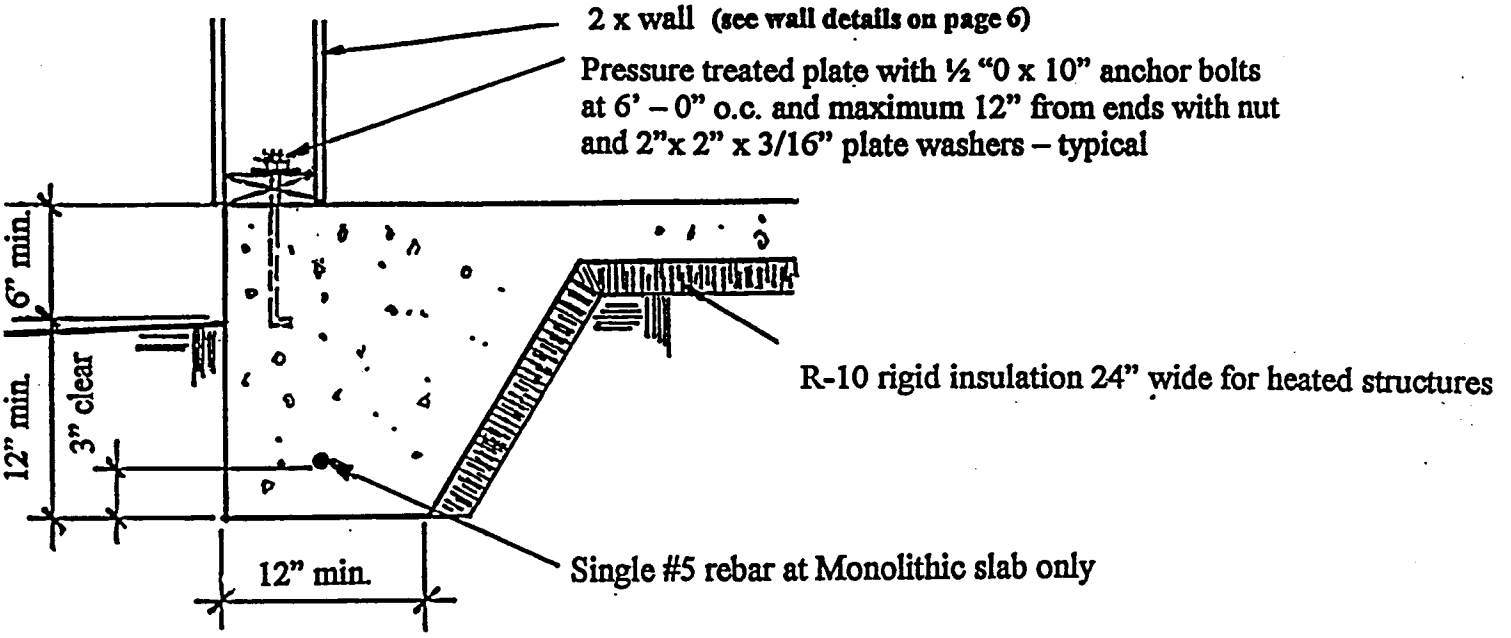
Conventional Roof framing **(see detail 3, sheet 7 and 13)** _____

Vaulted ceiling **(see detail 4, sheet 8 and 13)** _____

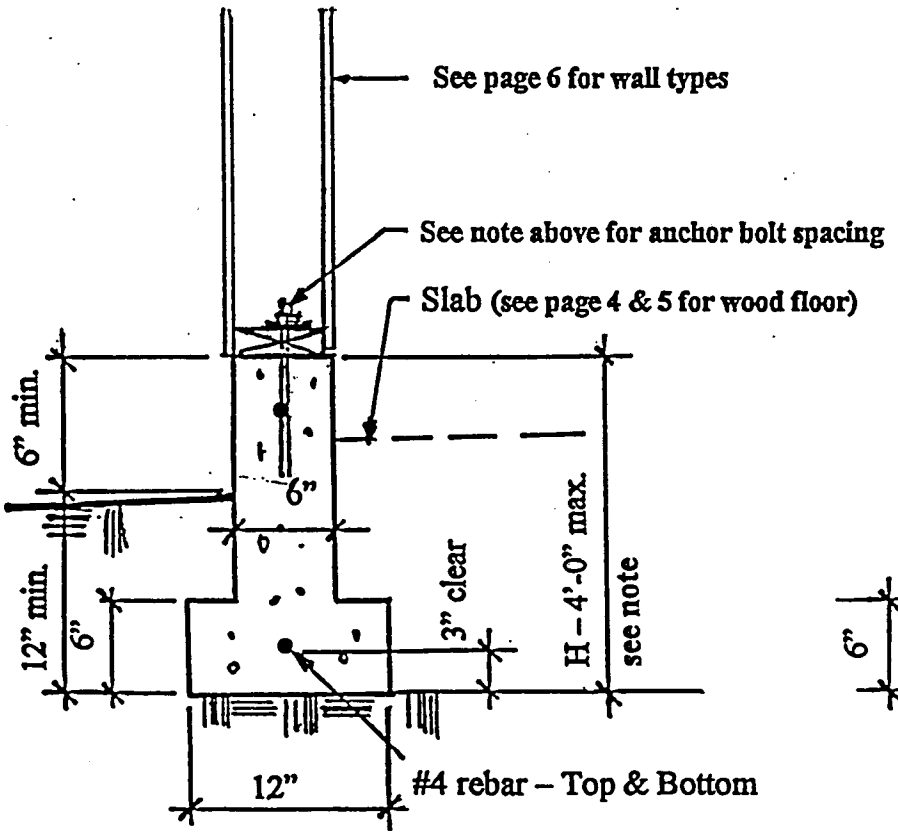
Engineered Trusses **(see sheet 9)** _____

Shed roof **(see page 10)** _____

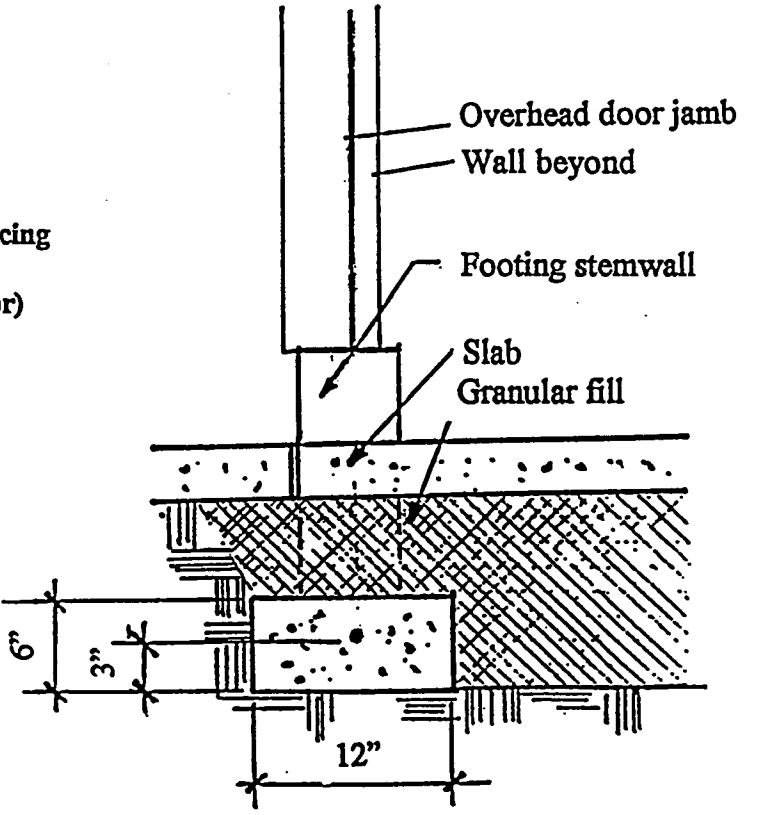
FOOTING



1/3 Monolithic slab/footing



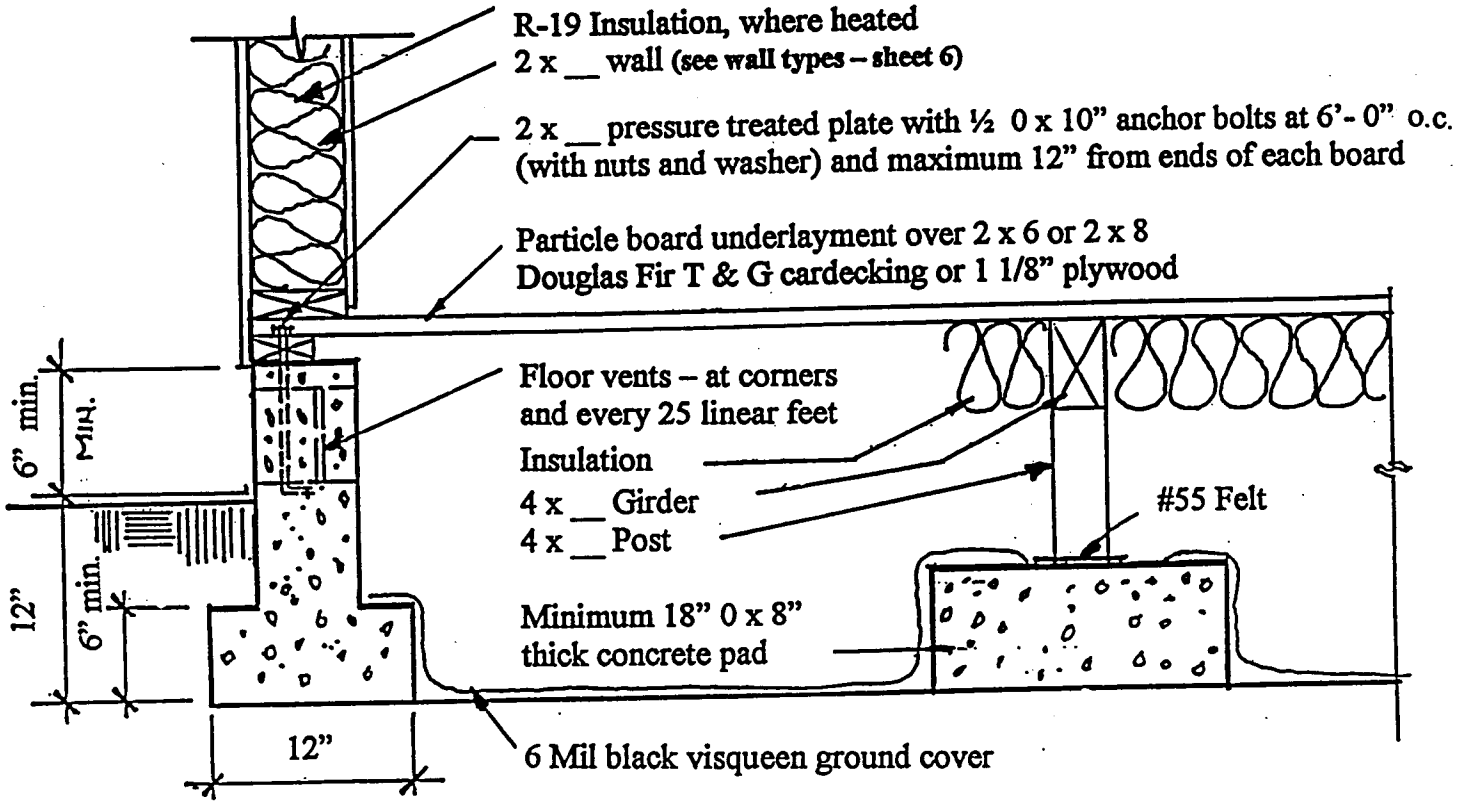
2/3 Footing with stem wall



3/3 Footing at door opening

Note: *Footings over 4'- 0" high require rebar at 18" o.c. vertical & horizontal (h dim) up to 8'- 0"
*Minimum concrete strength 2500 p.s.i.
*Lap rebar min. 30 diameters at splices – secure with tie wire

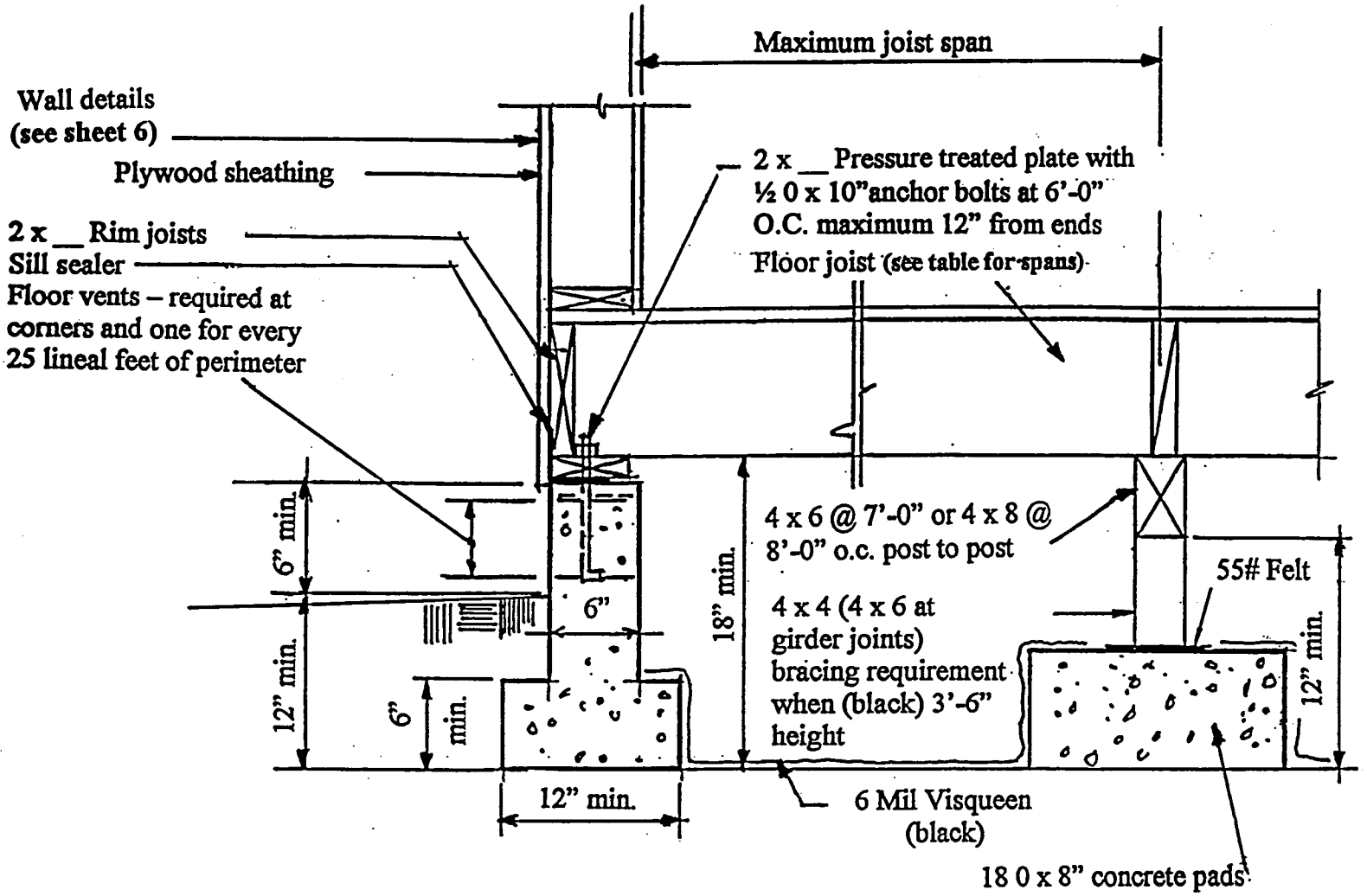
FOOTING/FLOOR



1/4 POST & BEAM

NOTES:
1. 4 x 6 D.F. #2 girders - maximum 7'-0" span. 4 x 8 maximum 8' x 0" span
2. 4 x 4 D.F. #2 post – 4 x 6 required at girder splices
3. Decking must be covered 3/8" plywood or type 2m particle board
4. 4 x __ post over 3'-6" high must be braced
5. (See page 6) for rebar requirement in footings

FLOOR TYPE



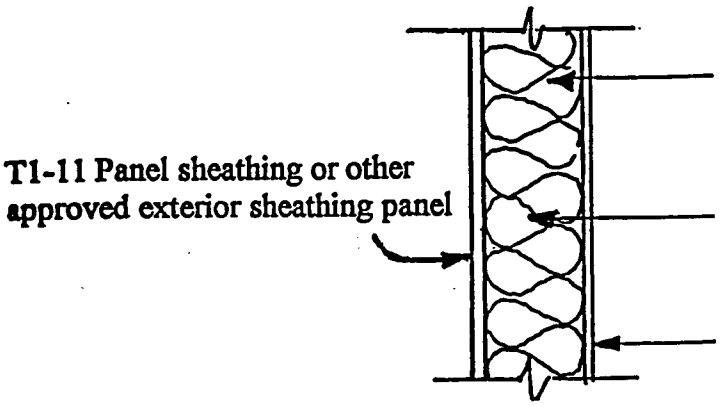
1/5 FLOOR JOISTS

Scale – 1"=1'- 0"

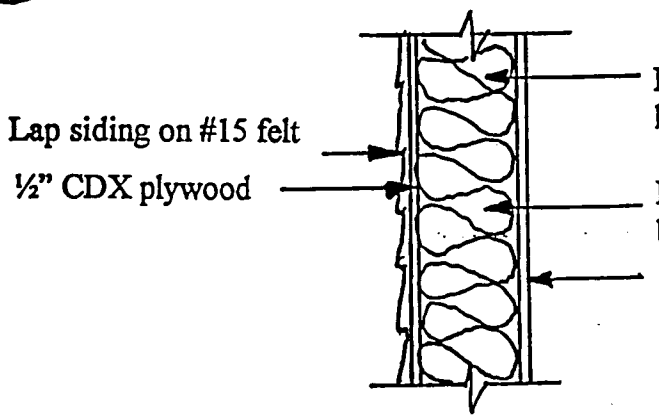
FLOOR JOISTS	12" o.c.	16" o.c.	24" o.c.
2 x 6	10-9	9-9	8-1
2 x 8	14-2	12-7	10-3
2 x 10	17-9	15-5	12-7
2 x 12	20-7	17-10	14-7

NOTES:
1. Floor joists to be minimum D.F. #2
2. Minimum spans for subfloor-underlayment 16" o.c. 1/2" CDX 24"o.c. 5/8" CDX species group1 (NW D.F.) CCX plugged or approved equal with T & G joints or blocked, unless ¼" underlayment is installed.

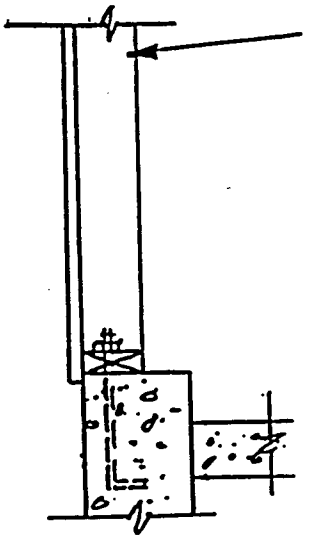
WALL TYPE



1/6 2 x 6 WALL WITH EXTERIOR SHEATHING



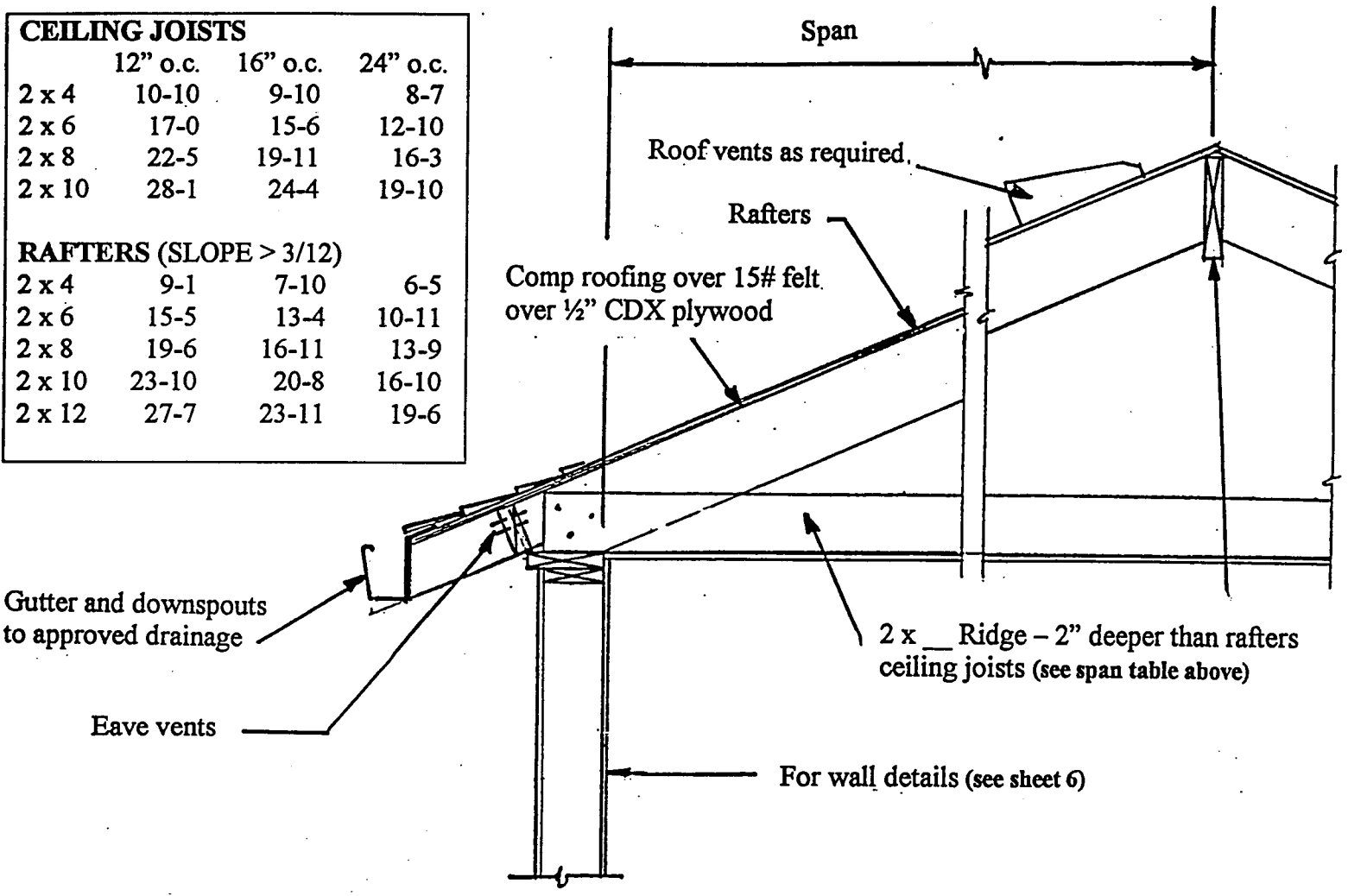
2/6 2 x 6 WALL WITH SIDING AND SHEATING



3/6 2 x 4 or 2 x 6 WALL -UNFINISHED

ROOF TYPE

CEILING JOISTS	12" o.c.	16" o.c.	24" o.c.
2 x 4	10-10	9-10	8-7
2 x 6	17-0	15-6	12-10
2 x 8	22-5	19-11	16-3
2 x 10	28-1	24-4	19-10
RAFTERS (SLOPE > 3/12)			
2 x 4	9-1	7-10	6-5
2 x 6	15-5	13-4	10-11
2 x 8	19-6	16-11	13-9
2 x 10	23-10	20-8	16-10
2 x 12	27-7	23-11	19-6

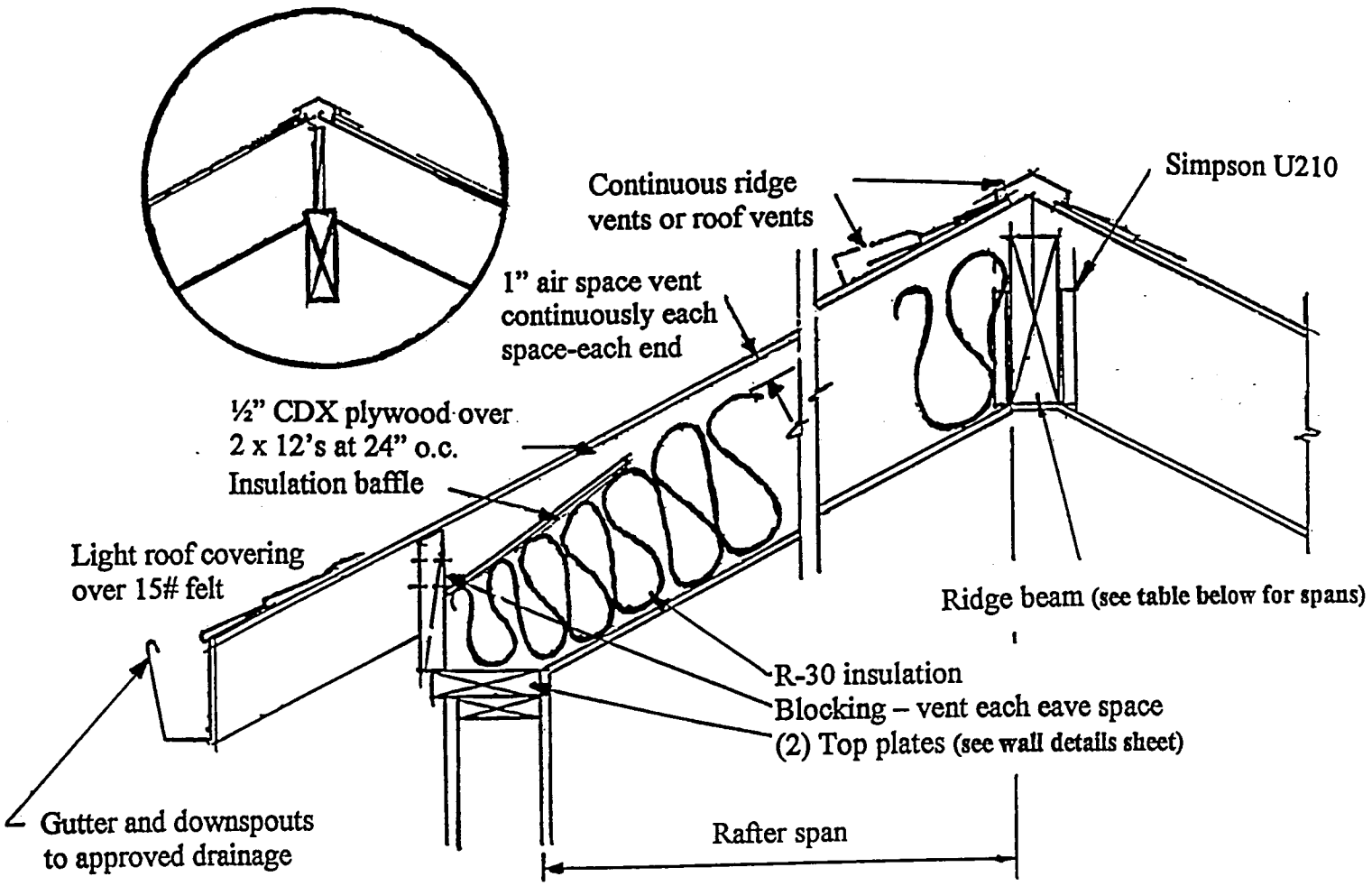


1. Ceiling joists to be Douglas Fir #2 or better
2. Rafters to be Douglas Fir #2 or better. Roof slopes greater than 3 in 12 **(see sheet 10 for slopes less than 3 in 12).** Rafters are for light roof coverings only – 25# snow 7# dead load.
3. Roof vent total net area to be 1/300 of roof area if ½ of required vents are 3'-0" above eave, otherwise 1/150 of roof area is required in roof vents.

1/7 CONVENTIONAL ROOF FRAMING

Scale – ¾" = 1'-0"

OPTIONAL FRAMING **ROOF TYPE**



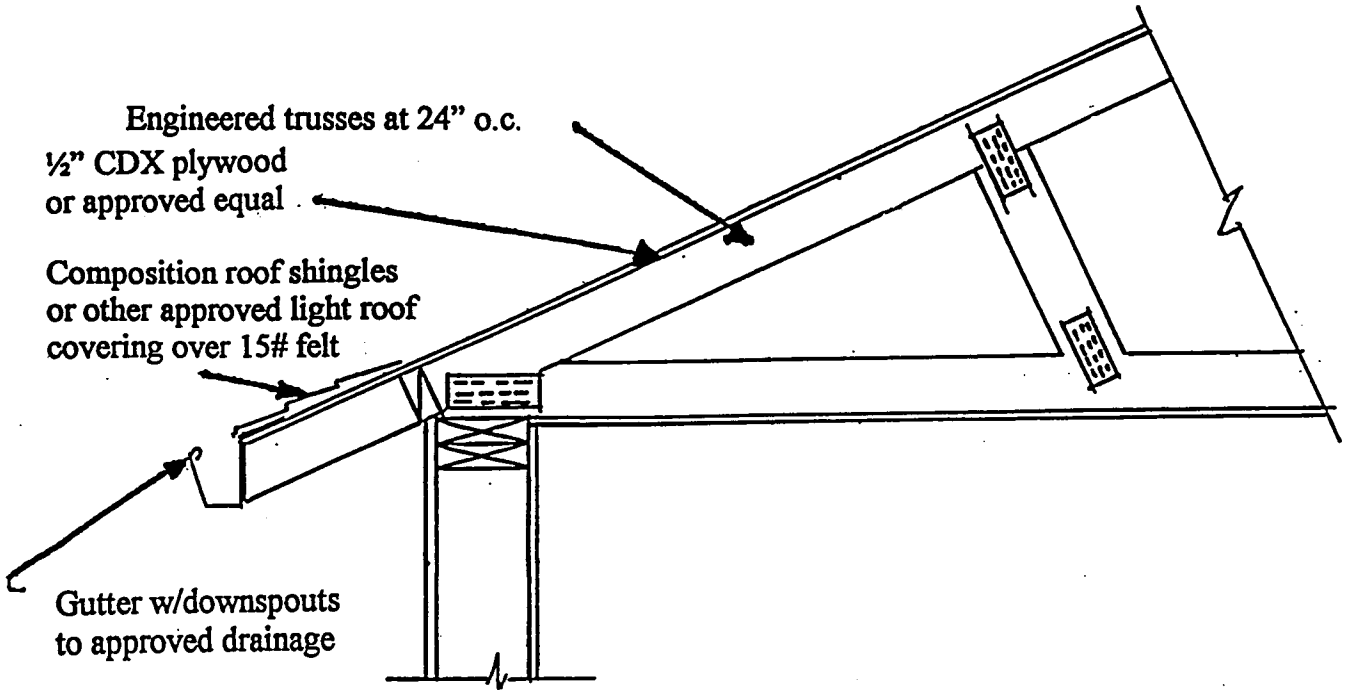
1/8 ROOF FRAMING (VAULTED)

MAXIMUM BEAM SPAN (SUPPORT TO SUPPORT)

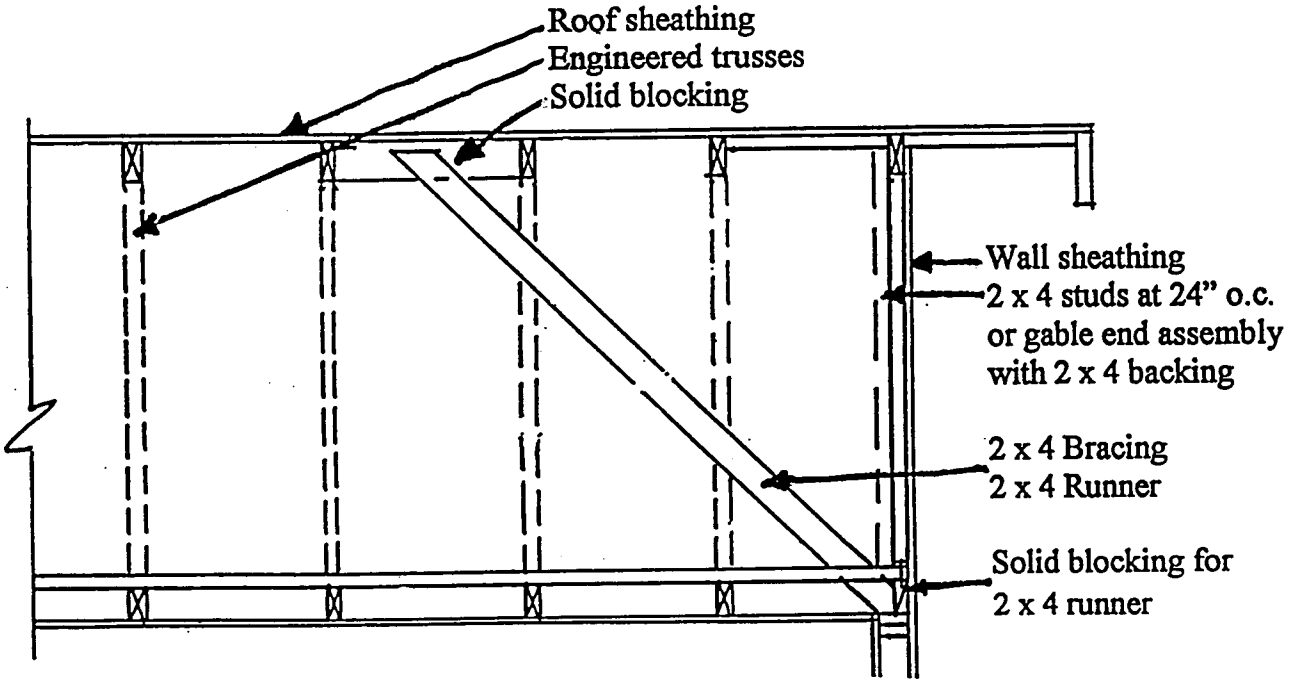
	10'–0"	12'–0"	14'–0"	16'–0"	18'–0"	20'–0"	22'–0"	24'–0"
10'-0"	2-2 x 12	4 x 12 #1	6 x 12 4 x 16	6 x 14	3 1/8 x 12 6 x 16	3 1/8 x 13 ½ 5 1/8 x 12	5 1/8 x 13 ½ 3 1/8 x 15	3 1/8 x 16 ½ 5 1/8 x 13 ½
12'-0"	(2) 2 x 12	6 x 12 4 x 14	6 x 12 #1 4 x 16 #1	3 1/8 x 12 5 1/8 x 10 ½	3 1/8 x 13 ½ 5 1/8 x 12	3 1/8 x 15 5 1/8 x 12	3 1/8 x 16 ½ 5 1/8 x 13 ½	3 1/8 x 18 5 1/8 x 15
14'-0"	4 x 14	4 x 14 #1 6 x 12 #1	3 1/8 x 12 6 x 14 #1	3 1/5 x 13 ½ 5 1/8 x 10 ½	3 1/8 x 15 5 1/8 x 12	3 1/8 x 16 ½ 5 1/8 x 13 ½	3 1/8 x 18 5 1/8 x 15	3 1/8 x 19 ½ 5 1/8 x 16 ½
16'-0"	4 x 14	6 x 12 #1	3 1/8 x 12 6 x 14 #1	3 1/8 x 13 ½	3 1/8 x 15 5 1/8 x 12	3 1/8 x 16 ½ 5 1/8 x 13 ½	3 1/8 x 18 5 1/8 x 15	5 1/8 x 16 ½
18'-0"	4 x 14 #1	6 x 12 #1	3 1/8 x 13 ½ 5 1/8 x 10 ½	3 1/8 x 15 5 1/8 x 12	3 1/8 x 16 ½ 5 1/8 x 13 ½	3 1/8 x 18 5 1/8 x 13 ½	3 1/8 x 19 ½ 5 1/8 x 16 ½	5 1/8 x 18

NOTE: 1) L=GLU-LAM BEAM Fb=2400
2) 4 x __ and 6 x __ Douglas Fir #2
3) 2 x __ Douglas Fir #2
4) Ridge beam to be supported by vertical wall or post to footings

ROOF TYPE



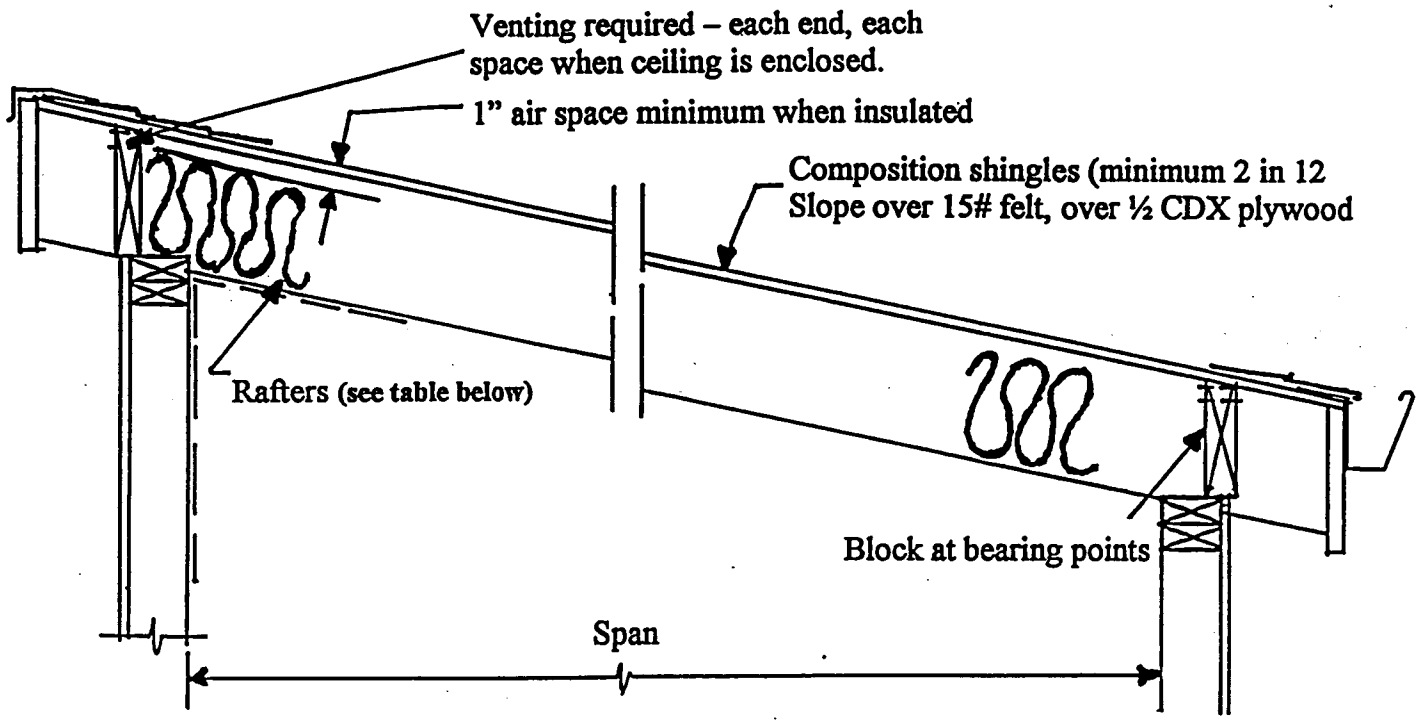
1 9 ROOF TRUSSES (MANUFACTURED)



2 9 GABLE END DETAIL

(Trusses shown-conventionally framed gable end bracing similar)

ROOF TYPE

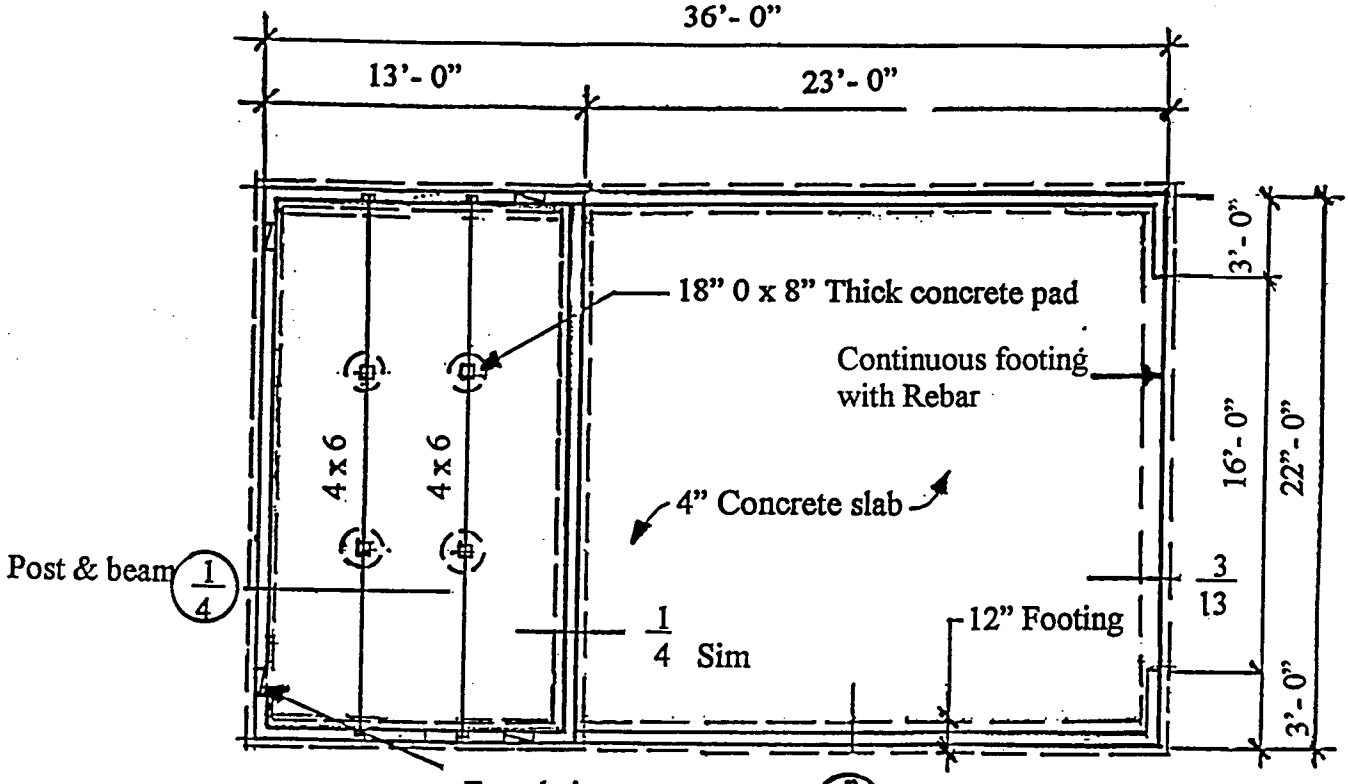


1/10 ROOF FRAMING (SHED)

NOTES:
1. 2-in 12-slope minimum for 3-tab composition roofing – for slopes 2 in 12 To 4 in 12, two layer of 15# felt required, applied shingle fashion.
2. Pitches less than 2 in 12 are to be hot mop, metal, sheet metal, rolled roofing or other approved material, applied as directed in approved manufacture's instructions.
3. When ceiling is applied, vent each rafter space continuously though top and bottom blocking. When heated, insulate with R-30 insulation, using 2 x 12 rafters to allow one inch vent space.
4. When attaching to existing building show ledger, size, and method of fastening joists and ledger show required flashing
5. Rafters are D.F. #2

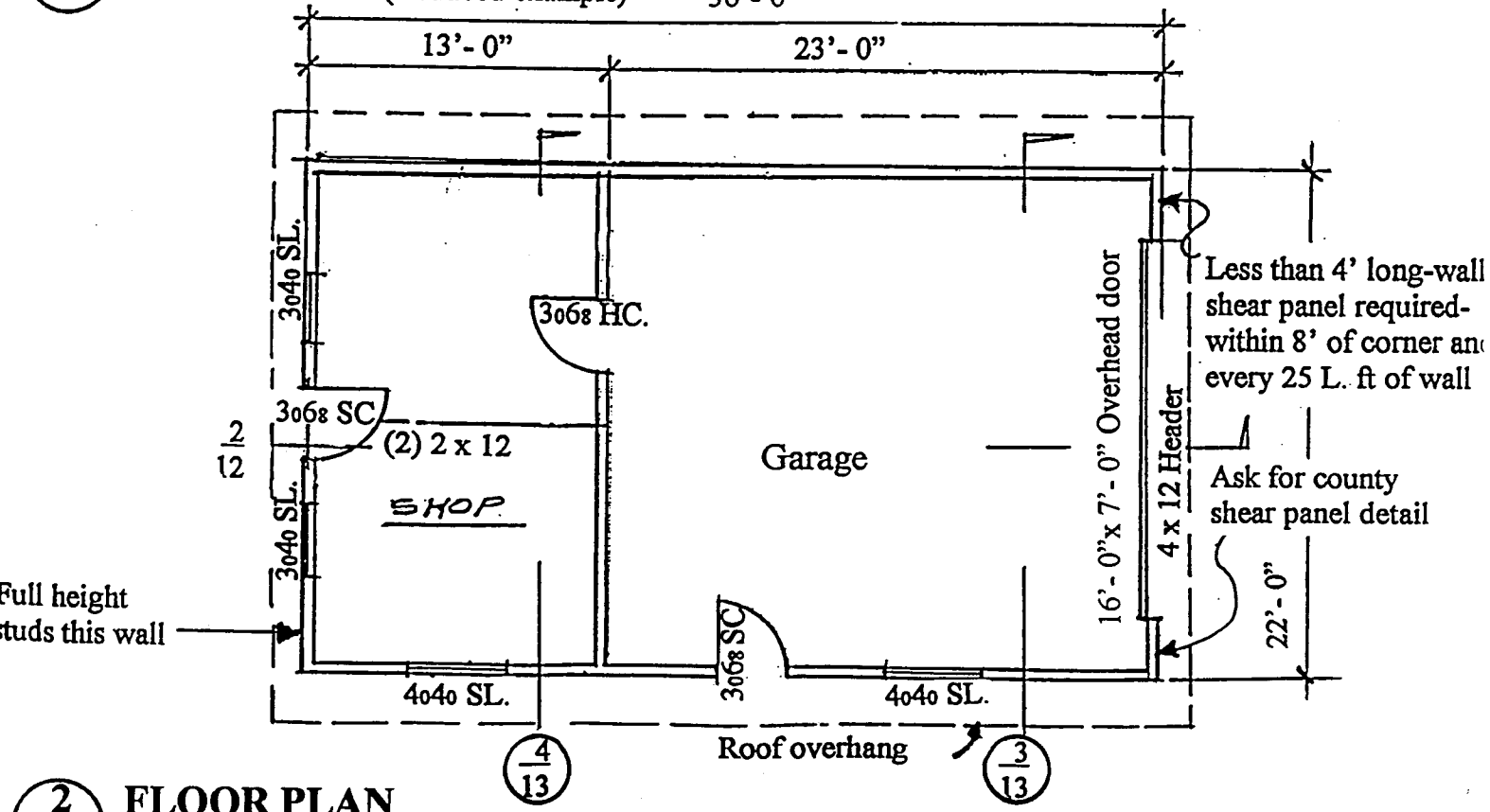
RAFTERS	12" o.c.	16" o.c.	24" o.c.
2 x 4	8 – 9	7 – 7	6 – 2
2 x 6	13 – 9	11 – 11	9 – 9
2 x 8	17 – 5	15 – 1	12 – 4
2 x 10	21 – 4	18 – 5	15 – 1
2 x 12	24 – 8	21 – 5	17 – 6

EXAMPLE FOUNDATION & FLOOR PLAN



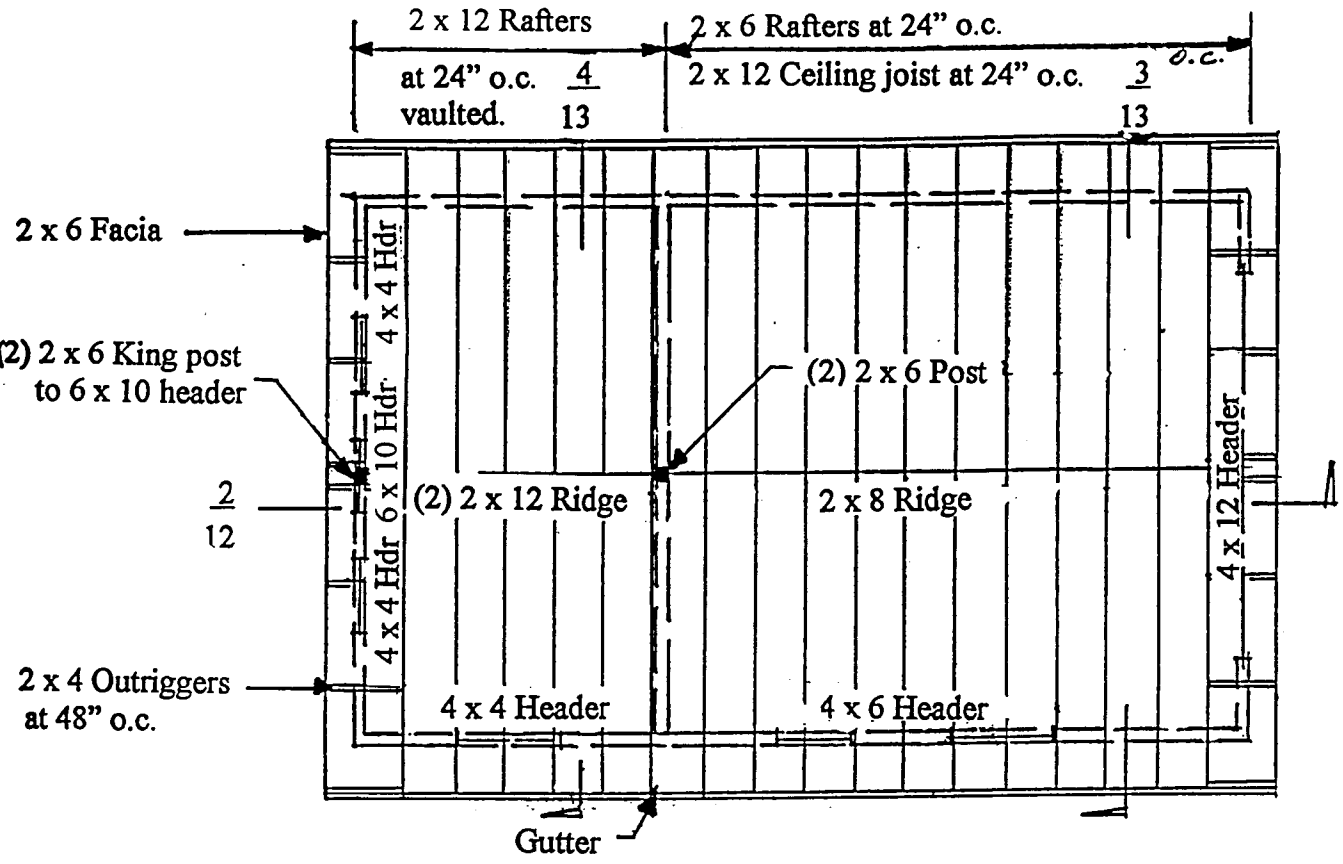
1/11 FOUNDATION / FLOOR FRAMING PLAN

Scale – ¼ = 1'- 0" (Reduced example)

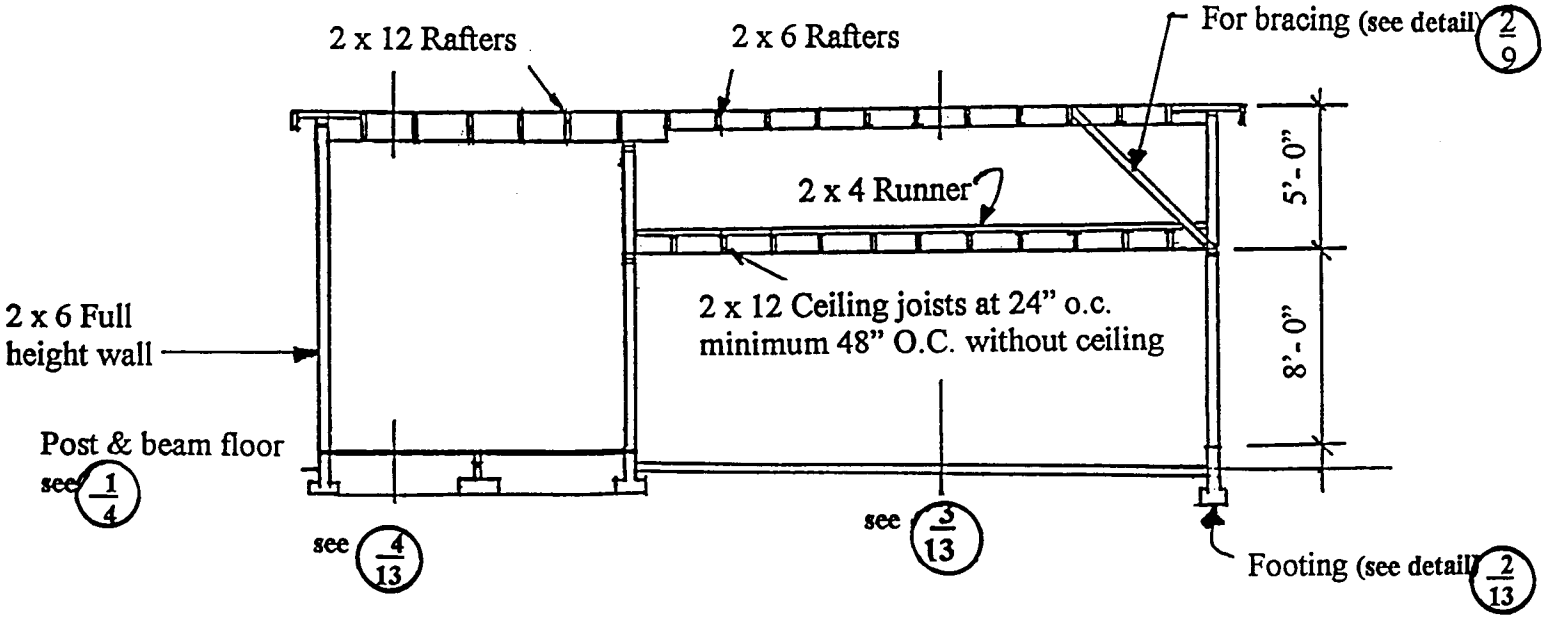


2/11 FLOOR PLAN

EXAMPLE ROOF FRAMING PLAN & SECTION

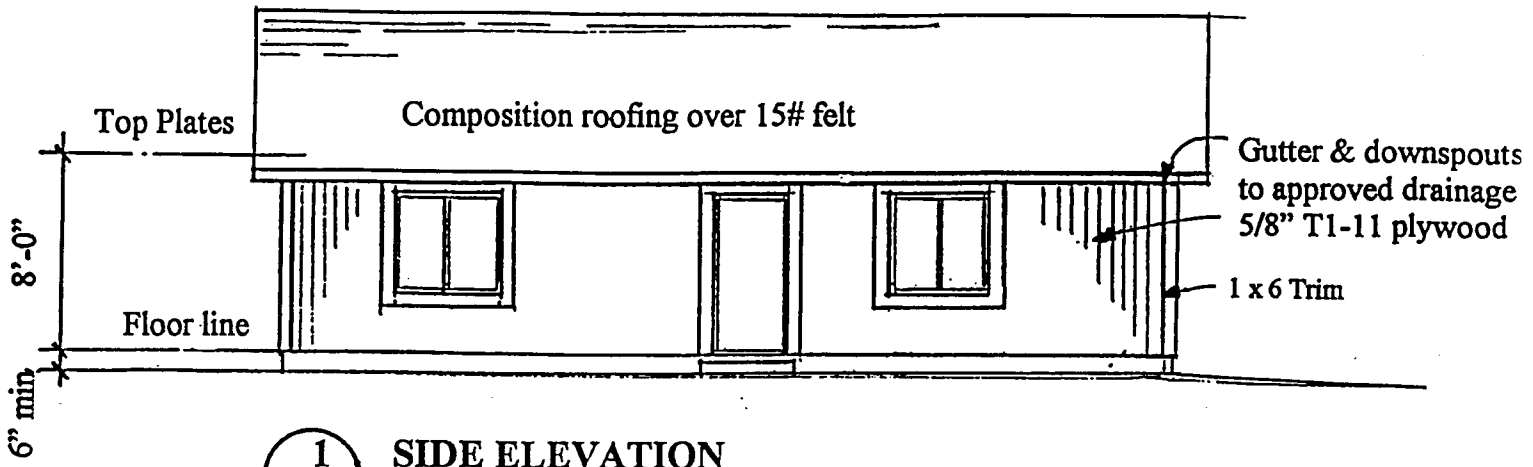


1/12 ROOF FRAMING PLAN

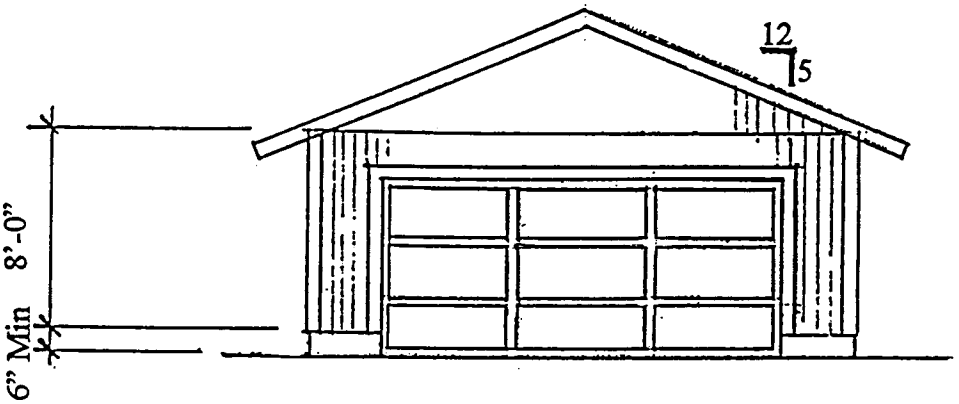


2/12 SECTION

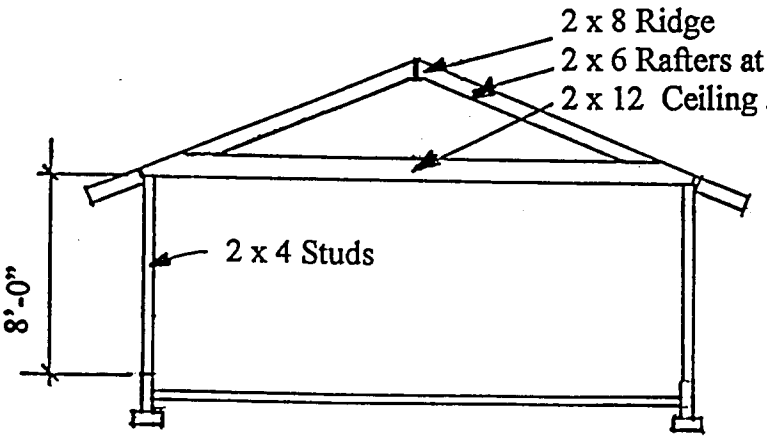
EXAMPLE ELEVATIONS & SECTIONS



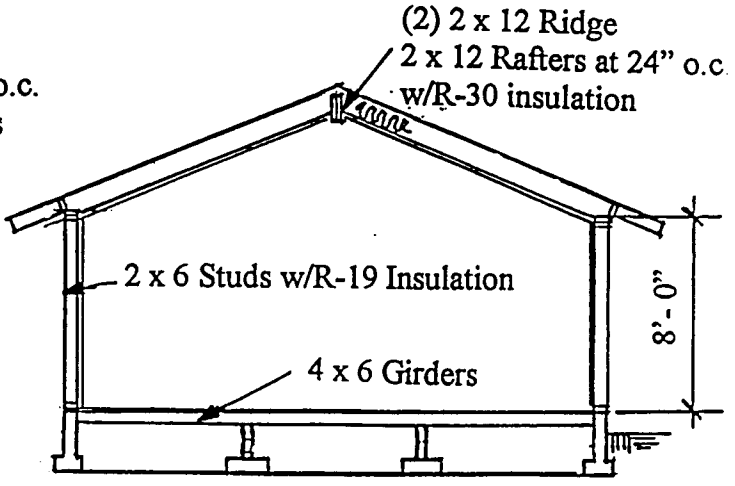
1/13 SIDE ELEVATION



2/13 FRONT ELEVATION



3/13 SECTION
(Thru garage)



4/13 SECTION
(Thru Shop)